

signal passes through said weighting-and-sampling element only when said weighting-and-sampling signal is in a weighting-and-sampling phase, said control signal generator for controlling an output signal of said weighting-and-sampling element to be integrated by the integrator during said weighting-and-sampling phase, and a current of the output signal of said weighting-and-sampling element is integrated to an integrated charge for producing one of a proportional voltage sample and a proportional current sample at a signal output upon completion of said weighting-and-sampling phase.

D3 *b* *b* *13* 40. (Amended) The band-pass charge sampling circuit according to claim ~~28~~ ¹¹, wherein the control signal generator controls the integrator to hold the sample until a resetting phase controlled by said resetting signal begins.

D4 *14* 44. (Amended) A parallel charge sampling circuit, comprising:
a common control signal generator; and
a plurality of charge sampling circuits, each respective charge sampling circuit having

sub a first analog input being a signal input of the respective charge sampling circuit and responsive to a controlling signal from the common control signal generator; and

G1 an integrator for integrating the analog input signal during a sampling phase responsive to a sampling signal from the common control signal generator;

wherein all analog first signal inputs are connected together as a common analog signal input of said parallel charge sampling circuit, a multiplexer having a plurality of signal inputs connected to the signal outputs of said charge sampling circuits respectively, control inputs connected to multiplexing signal outputs of said common control signal generator, and a signal output for multiplexing the outputs of said charge sampling circuits to the output of said parallel charge sampling circuit when the outputs of said charge sampling circuits are in holding phases.